

We claim:

*Sub a1*

1. A lead frame, for an integrated circuit chip having a frame engaging bottom surface, comprising:

a plurality of sidebars,  
each of said sidebars having an inner side and an outer side,  
said inner sides defining an aperture,  
said outer sides defining a chip-support zone,  
said zone being smaller in each dimension than the corresponding dimension of the chip,  
each sidebar having an upper chip-supporting surface for engaging the bottom surface of the chip.

2. The lead frame of claim 1, wherein said chip-supporting surface engages the bottom of the chip at a location remote from the high stress regions associated with the corners of the chip to minimize the risk of delamination.

3. The lead frame of claim 1 wherein at least one of said sidebars is generally rectilinear.

4. The lead frame of claim 1 wherein at least one of said sidebars is generally curvilinear.

5. The lead frame of claim 1, further comprising: one or more aperture traversing members, said members serving to divide said aperture into a plurality of smaller apertures.

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6. The lead frame of claim 1, further comprising:  
a plurality of support members having proximal and distal ends, each support

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member being connected to at least one sidebar by said respective proximal end.

7. The lead frame of claim 1 wherein said sidebars further comprise: opposite ends, said opposite ends intersecting to define corners.

8. The lead frame of claim 7, further comprising:  
a plurality of support members having proximal and distal ends, each support member being connected to at least one sidebar by said respective proximal end.

9. The lead frame of claim 8, wherein each of said connections between each support member and the at least one sidebar is in the vicinity of said respective corner.

10. The lead frame of claim 1, further comprising a ground ring surrounding the chip in spaced relation thereabout.

11. The lead frame of claim 1, further comprising:  
a plurality of leads, said leads being electrically isolated from said sidebars and disposed outside of said aperture, each of said leads having a proximal end and a distal end, said proximal end being proximate to said sidebars.

12. A lead frame for connecting and supporting an integrated circuit chip having an outer chip edge, comprising:

an apertured frame including interconnected side bars defining an outer frame edge, said frame edge being disposed within the outer chip edge, thus having no shoulder, and therefore minimizing fillet formation, and having a contact surface for securing the chip thereto.

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13. A lead frame for an integrated circuit chip having a frame-engaging bottom surface, comprising:

a plurality of sidebars, each of said sidebars having an inner side and an outer side, said sidebars defining an aperture, said frame being sized to be accommodated entirely within corresponding outer edges of the side chip, each side bar having an upper chip-supporting surface for engaging the lower surface of the chip.

14. A lead frame for an integrated circuit chip having a frame engaging bottom surface comprising:

an apertured frame said frame being generally circular and defining a circumferential edge and having a contact surface for securing the chip thereto, said frame edge being disposed within the outer chip edge for minimizing fillet formation.

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